PRESENTATION OVERVIEW

1. Project Background
2. Existing Conditions & Analysis
3. Proposal
4. Summary / Next Steps
Project Background
BETTER BUSES ACTION PLAN

- Mayor’s 2019 State of the City
  - Improve bus speeds 25% by 2020
- Better Buses Action Plan released April 2019
  - 24 priority projects announced for 2019 to increase bus speeds across all 5 boroughs
AREA BUS SPEEDS IN CONTEXT

AM/PM Peak Hour Bus Speed Averages

• Citywide: 7.7 MPH
• Manhattan: 5.6 MPH
• 42nd Street: 4.0 MPH
IMPORTANCE TO BUS NETWORK

- 8 different MTA bus routes across 3 boroughs use 42nd St
  - M42 Manhattan Route
  - X68 Queens Route
  - 6 Staten Island Express Bus Routes
- ~16,000 daily MTA bus passengers
- Up to 210 buses per hour travel along 42nd Street
- Bus delays on 42nd St can impact reliability city-wide
42\textsuperscript{nd} ST IS MULTI-MODAL

\begin{itemize}
  \item 42\textsuperscript{nd} Street travelers use a variety of modes, with nearly one-third traveling by bus during the PM peak
\end{itemize}

*Source: Feb 2019 traffic & sidewalk screen-line counts. Occupancy factors: 30 persons/bus, 1.3 persons/other vehicles
Buses operate on the margins of 42nd St, but carry the majority of the people.
Existing Conditions & Analysis
### BUS TRAVEL TIMES

#### M42 Running Time (Min, end to end)

<table>
<thead>
<tr>
<th>Direction</th>
<th>Day</th>
<th>Time of Day</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>12-6am</td>
<td>6-10am</td>
<td>10am-3pm</td>
<td>3-7pm</td>
<td>7pm-12am</td>
</tr>
<tr>
<td>EB</td>
<td>Weekday</td>
<td>18.8</td>
<td>33.1</td>
<td>34.4</td>
<td>29.4</td>
<td>24.3</td>
</tr>
<tr>
<td></td>
<td>Weekend</td>
<td>18.7</td>
<td>20.7</td>
<td>29.1</td>
<td>30.8</td>
<td>25.2</td>
</tr>
<tr>
<td>WB</td>
<td>Weekday</td>
<td>15.8</td>
<td>26.4</td>
<td>32.1</td>
<td>35.2</td>
<td>22.6</td>
</tr>
<tr>
<td></td>
<td>Weekend</td>
<td>16.4</td>
<td>19.1</td>
<td>27.8</td>
<td>29.3</td>
<td>23.2</td>
</tr>
</tbody>
</table>

Source: MTA NYCT

- Bus travel times are nearly double their overnight times throughout the day
- Trips are consistently long starting with the AM peak hour and through the PM peak
- On average, M42 buses spend more than 40% of their time stalled in traffic, at red lights, or crawling
BUS RELIABILITY ISSUES

- Bus running time is unreliable even within the same time period due to varying traffic conditions day to day
- Runs can vary by 20-40 minutes, leading to bus bunching, long/unpredictable waits at the bus stop, and crowding on the bus

M42 Running Times, Weekdays EB

Source: MTA NYCT
CURB ACTIVITY

• Fieldwork and video analysis
  • Bus lanes are underused due to very narrow width (9’) and occasional blockages by other vehicles
  • Quick pick-up/drop-off activity common along corridor
  • Commercial loading activity is high and durations are short (<1 hr)
Proposal
TRANSIT STREET DESIGN TOOLKIT

Bus lanes

Bus queue jump signals

Physical separation

Turn restrictions

Curb regulations

Bus boarders
Existing roadway conditions do not meet current DOT standards for lane widths. Typical lane widths are 10’-11’ for general travel lanes and 11’-12’ for bus lanes.

42 St is marked for 2 travel lanes with 1 curbside bus lane in each direction (in effect 7-10 AM, 4-7 PM except Sunday). However, it rarely functions that way due to loading needs and traffic conditions.
PROPOSED CROSS SECTION
(MIDBLOCK & INTERSECTIONS WITH NO TURNS)

- Curbside bus lane
- Thru travel lanes
- Offset bus lane
- Commercial Metered Parking/Loading

- Investigating physical protection in certain segments where feasible

- 12’ BUS
- 11’ Travel Lane
- 11’ Travel Lane
- 11’ BUS
- 9’ Parking / Loading

- 55’
PROPOSED CROSS SECTION (AT INTERSECTION WITH TURNS)

Within CB4: 11th Ave WB, 10th Ave EB, 9th Ave WB, 8th Ave EB

Within CB4: 11th Ave EB
BUS LANE HOURS & CURB REGULATIONS

• Offset bus lanes (lanes not against the curb) in effect 24/7
• Curbside bus lanes in effect 7 AM – 7 PM all days, except at bus stops or other existing No Standing Anytime
  • 7 PM – 7 AM hours allocated to metered commercial/truck loading
• Other curb space allocated to metered commercial/truck loading, hotel loading zones, authorized parking
PROPOSED DESIGN SAMPLE BLOCK

- Offset bus lane
- Truck loading
- Bus stop with bus boarder
- Curbside bus lane
- Offset bus lane
- Left turn bay for turns onto 10th Ave
- Bus stop with bus boarder
## CHANGES TO TURN RESTRICTIONS

<table>
<thead>
<tr>
<th>Location</th>
<th>Turn Direction</th>
<th>Current Regulation</th>
<th>New Regulation</th>
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</thead>
<tbody>
<tr>
<td>7 Av</td>
<td>Right turn EB to SB</td>
<td>Permitted All Times for All Vehicles</td>
<td>Restricted All Times for All Vehicles</td>
</tr>
<tr>
<td></td>
<td>Left turn WB to SB</td>
<td>Restricted All Times Except Buses</td>
<td>Restricted All Times for All Vehicles</td>
</tr>
<tr>
<td>6 Av</td>
<td>Left turn EB to NB</td>
<td>No Turns 7am-7pm Except Sunday</td>
<td>Restricted All Times for All Vehicles</td>
</tr>
<tr>
<td></td>
<td>Left turn WB to SB</td>
<td>No Turns 7am-7pm Except Sunday</td>
<td>Restricted All Times Except Buses</td>
</tr>
<tr>
<td>Lexington Av</td>
<td>Right turn EB to SB</td>
<td>No Turns 7-10am, 4-7pm Mon-Fri Except Buses</td>
<td>No Turns 7am-7pm Except Buses</td>
</tr>
</tbody>
</table>
BUS STOP CHANGES

- Park Ave – 3rd Ave: 3 stops within 2 short blocks in each direction
• Consolidate Lex Ave and 3rd Ave stops to single stop in each direction to improve stop spacing, more closely matching standard spacing along rest of 42nd
SIGNAL TIMING CHANGES

- Studying new split signal phasing for EB left turn from 42\textsuperscript{nd} St onto 8\textsuperscript{th} Ave to provide separate dedicated crossing time for pedestrians separate from left turns
- Proposed bus queue jump signals at 2\textsuperscript{nd} Ave, 3\textsuperscript{rd} Ave, Lexington Ave, & 10\textsuperscript{th} Ave
DYER AVE – 9TH AVE OPERATIONS

- New 42nd St design provides groundwork for wider study of Dyer-9th Ave operations and additional improvements
- Post-implementation study to evaluate impacts to traffic volumes & potential for Dyer turn lane reductions/restrictions, extended EB bus lane to 9th Ave, & expanded hours of Dyer Ave contraflow bus lane
Summary / Next Steps
SUMMARY

- Current design of 42\textsuperscript{nd} St does not meet the demands of most street users
- Street design changes will
  - Improve bus speeds and reliability
  - Make commercial metered parking/loading space available throughout the day and overnight to reduce illegal standing and daytime congestion
  - Improve turns off of 42\textsuperscript{nd} Street at key intersections
  - Restrict some turns to improve safety and traffic flow
IMPLEMENTATION SCHEDULE

• **June 2019**: Corridor design presentation to Community Boards 4, 5, & 6
• **Summer 2019**: Adjustments to plan as needed, street design implementation
• **Fall 2019**: Post-implementation data collection & monitoring
THANK YOU!

Questions?